

ABSTRACT

A method for measuring a fill level (7) of a fill substance (1) in a container (3) and for monitoring at least one predetermined fill level (L_{MIN} , L_{MAX}), using a fill level measuring device (5) working according to the travel-time principle, as well as a corresponding fill level measuring device (5), wherein the monitoring satisfies high safety standards, wherein, in each measuring cycle, transmission signals (S) are sent toward the fill substance (1) and their echo signals (E) are received, the fill level (7) is determined, based on the echo signals (E), in a first evaluation method, and it is determined, based on the echo signals (E), in a second evaluation method independent of the first evaluation method, whether the fill level exceeds or falls beneath the predetermined fill levels (L_{MIN} , L_{MAX}).